

Guided Radiation Therapy System

Abstract of Disclosure

A system and method for accurately locating and tracking the position of a target, such as a tumor or the like, within a body. In one embodiment, the system is a target locating and monitoring system usable with a radiation delivery source that delivers selected doses of radiation to a target in a body. The system includes one or more excitable markers positionable in or near the target, an external excitation source that remotely excites the markers to produce an identifiable signal, and a plurality of sensors spaced apart in a known geometry relative to each other. A computer is coupled to the sensors and configured to use the marker measurements to identify a target isocenter within the target. The computer compares the position of the target isocenter with the location of the machine isocenter. The computer also controls movement of the patient and a patient support device so the target isocenter is co-incident with the machine isocenter before and during radiation therapy.